

Appl. No. 09/883,995
In re Yamamoto, W.
Reply to Office action of Feb. 27, 2003

REMARKS/ARGUMENTS

The Examiner is thanked for the Official Action dated February 27, 2003. This amendment is intended to be fully responsive thereto.

Claims 1-3 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

More specifically, the Examiner noted that the wording "get just" in claim 1, line 14, was not understood. Claim 1 has been amended to replace "get just" with "are retained". No new matter has been entered by this amendment.

The Examiner further noted that the terms "the cathode cartridge" and "the plated parts" in claim 2 did not have antecedent basis. Claim 2 has been amended, thus rendering this rejection moot. No new matter has been entered by this amendment.

The Examiner also noted that the wording "at liberty of putting on and taking off for" in claim 3 did not read correctly. Claim 3 has been amended, thus rendering this rejection moot. No new matter has been entered by this amendment.

Claims 2,3 were rejected under 35 U.S.C. 102(a) as being anticipated by admitted prior art. Applicant respectfully disagrees.

The Examiner erroneously alleges that the fact that conductor 33, shown in Fig. 10 of the present application representing the prior art, is intended to be a cathode conductor instead of an anode conductor is irrelevant, since the polarity of an electrode is not a structural distinction.

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Claim 2 recites the anode cartridge for electroplating. It is well known to those skilled in the art of electroplating that the cathode cartridge in the testing device for electroplating includes a part to be electroplated, such as the plated base 32 in Fig. 10 or silicon wafer (plated base) 2 in Figs. 1-4. The anode cartridge, on the contrary, **may not** include the plated base 32. As illustrated in Figs. 8 and 9 and described in the pages 11-14 of the instant application and is generally well known to those skilled in the art of electroplating, during the electroplating process, the cathode and anode cartridges are placed into a plating solution within the plating tank in a spaced relationship relative to each other. The part to be plated is secured to the cathode cartridge. The plating solution contains positive ions such as copper ions, and the like. The source of D.C. current is connected to the terminals of the cathode and anode cartridges: positive pole to the anode cartridge and negative pole to the cathode cartridge. Therefore, lines of electric field extend from the anode cartridge to the cathode cartridge, thus transmitting the positive ions from the plating solution to the plated part of the plated base disposed in the cathode cartridge consequently electroplating the plated base. It is clear from the above description that the anode cartridge may not include the plated base.

Therefore, the rejection of claims 2 and 3 under 35 U.S.C. 102(a) as being anticipated by the device shown in Fig. 10 of the present application is improper.

Claim 1 was rejected under 35 U.S.C. 103(a) as being unpatentable over admitted prior art in view of Clark et al. (US 3,347,768) and Moll et al. (US 4,425,918) or Hans-Jurgen et al. (US 4,400,258). Applicant respectfully disagrees.

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The admitted prior art fails to disclose the first elastic thin board having a recess into which the plated base is retained, and the second elastic thin board sandwiched between the cathode conductor and the plated base.

The system of Clark relates to the electrolytic passivation, but is not related to the cathode and anode cartridges for electroplating of the present invention. The Examiner alleges that Clark discloses an electrode 28 being supported between flanges 30 and a pair of washers 31. However, Clark fails to disclose the plated base sandwiched between the first and second elastic thin boards and having the plated part, and the cathode conductor between the front insulator and the second elastic thin board, the front insulator having a recess for retaining the cathode conductor, the first elastic thin board having a recess into which the plated base is retained, and the rear wall insulator having a recess into which the cathode conductor and the first elastic thin board are retained. Moreover, the flanges 30 of Clark cannot be interpreted as the front and rear insulators as the flanges 30 are integral part of pipe 12, 15, 21 or 26 made of stainless steel (see column 2, lines 17-19). Furthermore, Clark fails to disclose the tabular cathode conductor having a plurality of protruding portions and the second elastic thin board having a plurality of holes for guiding the protruding portions of the cathode conductor.

The Examiner further alleges that Moll discloses the well-known locking arrangement of a protrusion 10 being snapped locked into a recess 7, and Hans-Jurgen discloses a similar locking arrangement with protrusion 2a being snapped locked into recess 3a.

However, the US Patent Statute (MPEP 2141.01(a)) requires that "In order to rely on a reference as a basis for rejection of an applicant's invention, the reference must either be in the

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field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned." Moll and Hans-Jurgen disclose sensing (measuring) devices, while the present invention claims the cathode cartridge of the testing device for electroplating. Clearly, the sensing (measuring) devices of Moll and Hans-Jurgen are not within the field of applicant's endeavor (electroplating), and are not reasonably pertinent to the particular problem with which the inventor was concerned, and a person of ordinary skill in the art of electroplating would not reasonably be expected or motivated to look to the sensing (measuring) devices.

Moreover, both Moll and Hans-Jurgen fail to disclose the tabular cathode conductor having a plurality of protruding portions and the second elastic thin board having a plurality of holes for guiding the protruding portions of the cathode conductor.

MPEP § 2143.01 requires that there must be some suggestion or motivation, either in the prior art references or in the knowledge generally available to one of ordinary skill in the art, to modify or combine teachings of the prior art. However, the prior art cited fails to provide any suggestion or motivation to combine teachings of the cited prior art, and the Examiner fails to prove as to why one having ordinary skill in the art would have found the claimed invention to be obvious in light of the teachings of the prior art.

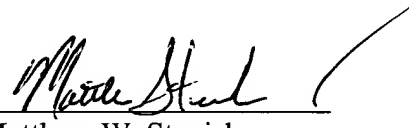
Moreover, even if the combination of and modification of the admitted prior art and Clark and Moll or Hans-Jurgen suggested by the Examiner could be made, the resulting device still would lack all the elements of the cathode cartridge of the testing device for electroplating as recited in claim 1 of the present application.

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Therefore, because of the all of the above reasons, the rejection of claim 1 under 35 U.S.C. § 103(a) is improper.

It is respectfully submitted that claims 1-3, as amended, define the invention over the prior art of record and are in condition for allowance, and notice to that effect is earnestly solicited. Should the Examiner believe further discussion regarding the above claim language would expedite prosecution they are invited to contact the undersigned at the number listed below.

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